

| Ref # | Hits  | Search Query   | DBs                          | Default Operator | Plurals | Time Stamp       |
|-------|-------|--|------------------------------|------------------|---------|------------------|
| S3    | 3     | ((("6207601") or ("6623699") or ("4573910"))).PN.  | USPAT;<br>USOCR              | OR               | OFF     | 2004/10/25 10:18 |
| S4    | 79292 | "422"/\$5  | USPAT                        | OR               | OFF     | 2004/10/14 16:06 |
| S5    | 356   | S4 and combust\$5 and piston\$1 and volum\$5   | USPAT                        | OR               | OFF     | 2004/10/14 15:39 |
| S6    | 82    | S5 and furnace\$1  | USPAT                        | OR               | OFF     | 2004/10/14 15:46 |
| S7    | 53    | S6 and analy\$5  | USPAT                        | OR               | OFF     | 2004/10/14 15:43 |
| S8    | 83    | S5 and (correct\$4 or calculat\$4 or defin\$4 or determ\$5) with volum\$2  | USPAT                        | OR               | OFF     | 2004/10/14 15:48 |
| S9    | 13    | S7 and S8  | USPAT                        | OR               | OFF     | 2004/10/14 15:48 |
| S10   | 6     | 422/78 and "variable volume"   | USPAT                        | OR               | OFF     | 2004/10/14 16:06 |
| S11   | 4     | ((("4795614") or ("3918911") or ("6105416") or ("6240767") or ("6105416"))).PN.  | USPAT;<br>USOCR              | OR               | OFF     | 2004/10/15 10:07 |
| S12   | 4     | ((("3698869") or ("5013528") or ("4622009"))).PN.  | USPAT;<br>USOCR              | OR               | OFF     | 2004/10/15 10:09 |
| S13   | 7     | ("3710107"   "3848128"   "4113434"   "4140487"   "4193963"   "4393304"   "5152963").PN. OR ("6240767").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR               | OFF     | 2004/10/15 11:51 |
| S14   | 6     | ("3710107"   "4113434"   "4140487"   "4193963"   "4393304"   "5152963").PN. OR ("6105416").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR               | OFF     | 2004/10/15 11:57 |
| S15   | 22    | ("2556854"   "2576802"   "2837320"   "2859020"   "3168294"   "3252759"   "3421857"   "3698869"   "4055259"   "4496249"   "4525328").PN. OR ("4795614").URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR               | OFF     | 2004/10/15 12:07 |
| S16   | 2857  | "variable volume" and (combust\$4 or oxid\$8 or ozon\$5 or burn\$4) and volum\$5   | USPAT                        | OR               | OFF     | 2004/10/15 12:32 |
| S17   | 2037  | S16 and piston\$1  | USPAT                        | OR               | OFF     | 2004/10/15 12:15 |
| S18   | 678   | S17 and (sensor\$5 or detect\$5 or analy\$7)   | USPAT                        | OR               | OFF     | 2004/10/15 12:17 |
| S19   | 18    | S18 and furnace\$1   | USPAT                        | OR               | OFF     | 2004/10/15 12:17 |
| S20   | 79    | "variable volume" and element\$2 with analy\$5   | USPAT                        | OR               | OFF     | 2004/10/15 13:32 |
| S21   | 12    | ("3296435"   "3698869"   "3918911"   "3923464"   "3958936"   "4271124"   "4401763").PN. OR ("4573910").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR               | OFF     | 2004/10/15 12:55 |
| S22   | 1     | "variable volume" and "volume correction factor"   | USPAT                        | OR               | OFF     | 2004/10/15 13:36 |

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| S23 | 4   | combust\$5 and "volume correction factor"  | USPAT                  | OR | OFF | 2004/10/15 13:41 |
| S24 | 198 | combust\$5 and (variable adj volume) and analy\$5  | USPAT                  | OR | OFF | 2004/10/15 15:07 |
| S25 | 7   | ("3577967"   "3739758"   "4040405"   "4488526"   "4572136"   "5724951"   "6135100").PN. OR ("6755076").URPN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/15 13:46 |
| S26 | 1   | ("4795614").PN.  | USPAT; USOCR           | OR | OFF | 2004/10/15 15:19 |
| S27 | 12  | ("3296435"   "3698869"   "3918911"   "3923464"   "3958936"   "4271124"   "4401763").PN. OR ("4573910").URPN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 09:37 |
| S28 | 26  | ("3304159"   "3650696"   "3698869"   "3716334"   "3838969"   "3920396"   "4227887"   "4234315"   "4325907").PN. OR ("4401763").URPN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 09:48 |
| S29 | 12  | ("3296435"   "3698869"   "3918911"   "3923464"   "3958936"   "4271124"   "4401763").PN. OR ("4573910").URPN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 09:54 |
| S30 | 28  | ("2809100"   "3062624"   "3296435"   "3428432"   "3431077"   "3694157"   "3698869"   "3864088"   "3918911"   "3923464"   "3958936"   "3985505"   "4271124"   "4332591"   "4371971"   "4401763"   "4525328").PN. OR ("4622009").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 09:56 |
| S31 | 2   | ("3431077").PN.  | USPAT; USOCR           | OR | OFF | 2004/10/18 10:45 |
| S32 | 2   | ("2809100").PN.  | USPAT; USOCR           | OR | OFF | 2004/10/18 10:47 |
| S33 | 6   | ("3694157").URPN.  | USPAT                  | OR | OFF | 2004/10/18 10:49 |
| S34 | 12  | ("3923464"   "3958936"   "4282183"   "4352781"   "4622009"   "4805881"   "5064617").PN. OR ("5236353").URPN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 10:57 |
| S35 | 16  | ("3296435"   "3698869"   "3918911"   "4271124"   "4401763").PN. OR ("4525328").URPN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 10:59 |
| S36 | 6   | ("3647385"   "3649202"   "3716334"   "3810738"   "3854877").PN.  | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 11:04 |
| S37 | 31  | ("3647385"   "3649202"   "3716334"   "3810738"   "3854877").PN. OR ("3985505").URPN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/10/18 11:04 |

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| S38 | 28 | ("2809100"   "3062624"   "3296435"<br>  "3428432"   "3431077"  <br>"3694157"   "3698869"   "3864088"<br>  "3918911"   "3923464"  <br>"3958936"   "3985505"   "4271124"<br>  "4332591"   "4371971"  <br>"4401763"   "4525328").PN. OR<br>("4622009").URPN.                             | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:13 |
| S39 | 16 | ("3296435"   "3698869"   "3918911"<br>  "4271124"   "4401763").PN. OR<br>("4525328").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:14 |
| S40 | 25 | ("1743803"   "2930602"   "3100155"<br>  "3281596"   "3403982"  <br>"3619839"   "3650823"   "3824016"<br>  "3899627"   "4091970"  <br>"4303615"   "4328386"   "4573910"<br>  "4789140"   "5064617"  <br>"5085582"   "5236353"   "5246667"<br>  "5637809").PN. OR ("6270727").<br>URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:19 |
| S41 | 24 | ("2687614"   "2809100"   "3085717"<br>  "3301213"   "3459938"  <br>"3567386").PN. OR ("3923464").<br>URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:22 |
| S42 | 28 | ("2809100"   "3062624"   "3296435"<br>  "3428432"   "3431077"  <br>"3694157"   "3698869"   "3864088"<br>  "3918911"   "3923464"  <br>"3958936"   "3985505"   "4271124"<br>  "4332591"   "4371971"  <br>"4401763"   "4525328").PN. OR<br>("4622009").URPN.                             | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:24 |
| S43 | 22 | ("1303980"   "2753246"   "3374064"<br>  "3694157"   "3734693"  <br>"3957441").PN. OR ("4282183").<br>URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:25 |
| S44 | 19 | ("1931895"   "2370293"   "2888332"<br>  "3374064"   "3923464"  <br>"3985505"   "4244917"   "4282183"<br>  "4352781").PN. OR ("5064617").<br>URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:29 |
| S45 | 22 | ("1303980"   "2753246"   "3374064"<br>  "3694157"   "3734693"  <br>"3957441").PN. OR ("4282183").<br>URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:30 |
| S46 | 22 | ("2556854"   "2576802"   "2837320"<br>  "2859020"   "3168294"  <br>"3252759"   "3421857"   "3698869"<br>  "4055259"   "4496249"  <br>"4525328").PN. OR ("4795614").<br>URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:40 |

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| S47 | 42    | ("3079505"   "3236602"   "3279308"<br>  "3319512"   "3428433"  <br>"3435209"   "3512398"   "3524709"<br>  "3614243"   "3751173"  <br>"3761187"   "3784359"   "3838972"<br>  "3865495"   "3950101"  <br>"3985505"   "4083367"   "4181437"<br>  "4192614"   "4238198"  <br>"4591268"   "4736103"   "4787750"<br>  "4822166"   "4823168"  <br>"4824790"   "4844611"   "4845040"<br>  "4886356"   "4889992"  <br>"5146283"   "5204270"  <br>"5285071").PN. OR ("6254828").<br>URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 11:48 |
| S48 | 22    | ("3489521"   "3511613"   "3578412"<br>  "3635394"   "4049134"  <br>"4055259"   "4238450"   "4701096"<br>  "4752219"   "4770590"  <br>"4888994"   "5055036"   "5064617"<br>  "5246667"   "5256060").PN. OR<br>("5395586").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 12:28 |
| S49 | 19    | ("1931895"   "2370293"   "2888332"<br>  "3374064"   "3923464"  <br>"3985505"   "4244917"   "4282183"<br>  "4352781").PN. OR ("5064617").<br>URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 12:36 |
| S50 | 4     | ("3698869"   "4650499"  <br>"4795614").PN. OR ("5013528").<br>URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 12:43 |
| S51 | 17    | ("3489521"   "3511613"   "3578412"<br>  "3635394"   "3985505").PN. OR<br>("4238450").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 12:58 |
| S52 | 3     | ("4795614").URPN.   | USPAT                        | OR | OFF | 2004/10/18 13:07 |
| S53 | 10    | ("4238450"   "4559201"   "5071626"<br>  "5096675"   "5112579"  <br>"5113770"   "5192506"   "5314662"<br>  "5366901"   "5395586").PN. OR<br>("6214292").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 14:51 |
| S54 | 24905 | (position\$4 or location\$4) with<br>(sensor\$4 or detector\$4) and<br>combust\$4   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 14:53 |
| S55 | 3097  | S54 and volum\$4 and piston\$1  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 14:54 |
| S56 | 2434  | S55 and (factor\$1 or ratio\$1 or<br>coefficient\$1)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 14:56 |
| S57 | 36    | S56 and ("422"/\$5 or "436"/\$5)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/18 15:22 |

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| S58 | 1   | ("4627267").PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/18 15:27 |
| S59 | 1   | ("3898584").PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/18 15:27 |
| S60 | 1   | ("3985505").PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/18 15:40 |
| S61 | 1   | ("6270727").PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/18 15:42 |
| S62 | 1   | ("4282183").PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/18 15:42 |
| S63 | 1   | ("4238450").PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/18 15:43 |
| S65 | 0   | volumetric and piston and<br>(detector\$1 or sensor\$1) and<br>cobbust\$4   | USPAT                        | OR | OFF | 2004/10/20 13:15 |
| S66 | 906 | volumetric and piston and<br>(detector\$1 or sensor\$1) and<br>combust\$4   | USPAT                        | OR | OFF | 2004/10/20 13:15 |
| S67 | 423 | S66 and (position\$1 or location\$1)<br>with piston\$1  | USPAT                        | OR | OFF | 2004/10/20 13:20 |
| S68 | 180 | S67 and (concentration\$1 or<br>amount\$1 or aliquot\$1 or quantit\$4)<br>with gas\$2                                 | USPAT                        | OR | OFF | 2004/10/20 13:23 |
| S69 | 141 | S68 and volume\$1   | USPAT                        | OR | OFF | 2004/10/20 13:24 |
| S70 | 11  | S69 not engine\$1   | USPAT                        | OR | OFF | 2004/10/20 13:30 |
| S71 | 148 | piston\$1 with sensor\$1 and<br>volumetric and combust\$4   | USPAT                        | OR | OFF | 2004/10/20 13:43 |
| S72 | 12  | S71 not engine\$1   | USPAT                        | OR | OFF | 2004/10/20 13:42 |
| S73 | 3   | piston\$1 with sensor\$1 and "volume<br>correction" and combust\$4  | USPAT                        | OR | OFF | 2004/10/20 13:46 |
| S74 | 6   | piston\$1 with sensor\$1 and "volume<br>correction"   | USPAT                        | OR | OFF | 2004/10/20 13:46 |
| S75 | 1   | ("4627267").PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/20 15:33 |
| S76 | 0   | ("10780940").PN.  | USPAT;<br>USOCR              | OR | OFF | 2004/10/21 12:49 |
| S77 | 14  | (valve adj sequenc\$3 adj<br>control\$4)and piston\$1 not<br>engine\$1  | USPAT                        | OR | OFF | 2004/10/22 09:35 |
| S78 | 27  | ("1685557"   "3530714"   "3910261"<br>  "3951137"   "4202352"  <br>"4233842").PN. OR ("4346584").<br>URPN.            | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 12:01 |
| S79 | 35  | ("2638096"   "2904033"   "3667475"<br>  "4346584"   "4366821"  <br>"4558708"   "4558709").PN. OR<br>("4691701").URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 10:30 |

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| S80 | 30   | ("2372324"   "2793908"   "2857964"   "3145736"   "3147770"   "3241569"   "3345915"   "3420270"   "3478780"   "3480034"   "3519016").PN. OR ("3747620").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 10:55 |
| S81 | 185  | (sequenc\$4 adj control\$4) and valv\$3 and piston\$1 and (combust\$5 or oxidyz\$4 or incinerat\$4)  | USPAT                        | OR | OFF | 2004/10/22 11:00 |
| S82 | 32   | S81 not engine\$1  | USPAT                        | OR | OFF | 2004/10/22 11:00 |
| S83 | 27   | ("1685557"   "3530714"   "3910261"   "3951137"   "4202352"   "4233842").PN. OR ("4346584").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 11:07 |
| S84 | 5    | ((("4,423,739") or ("3,910,261") or ("4,202,352") or ("4,346,584") or ("4,619,269")).PN.   | USPAT;<br>USOCR              | OR | OFF | 2004/10/22 12:01 |
| S85 | 16   | ("2574281"   "3252312"   "3475229").PN. OR ("3666252").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 12:36 |
| S86 | 3489 | (inlet adj valv\$4)and (outlet adj valv\$4)and piston\$1 and control\$4  | USPAT                        | OR | OFF | 2004/10/22 13:36 |
| S87 | 847  | S86 and sequenc\$4   | USPAT                        | OR | OFF | 2004/10/22 13:03 |
| S88 | 23   | S87 and combust\$4 not engine\$1   | USPAT                        | OR | OFF | 2004/10/22 13:03 |
| S89 | 13   | ("3430418"   "4194891"   "4440548"   "4543109"   "5002591"   "5656067"   "5827358"   "5961694"   "5968233"   "6156101"   "6268077"   "6461410").PN. OR ("6802889").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 13:07 |
| S90 | 39   | ("1933571"   "1943957"   "4302426"   "4358268"   "4426360"   "4454826"   "4470806"   "4474118"   "4650414"   "4658853"   "4793974"   "4802423"   "4828483"   "4909307"   "4923391"   "4942832"   "4943231"   "4961908"   "5016547"   "5024817"   "5044939"   "5092767"   "5098286"   "5101741"   "5129332"   "5134945"   "5143700").PN. OR ("5240403").URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 13:19 |
| S91 | 2994 | (inlet adj valv\$4)and (outlet adj valv\$4)and piston\$1 with (chamber\$1 or cylinder\$1 or unit\$1) and (control\$4 or monitor\$4)  | USPAT                        | OR | OFF | 2004/10/22 13:38 |
| S92 | 735  | S91 and sequenc\$4   | USPAT                        | OR | OFF | 2004/10/22 13:40 |
| S93 | 226  | S92 and (comput\$4 or processor or microprocessor)   | USPAT                        | OR | OFF | 2004/10/22 13:41 |

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|-----|-----|--|------------------------------|----|-----|------------------|
| S94 | 225 | S93 and (gas\$2 or liquid\$1 or fluid\$1)  | USPAT                        | OR | OFF | 2004/10/22 13:42 |
| S95 | 17  | ("3499317"   "4332159"   "4395903"   "4491016"   "4522056"   "4783989"   "4900405"   "4990058"   "5164053"   "5172586"   "5191786").PN. OR ("5563339").URPN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 14:38 |
| S96 | 6   | ("4285245"   "4364413").PN. OR ("5367910").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 14:48 |
| S97 | 4   | ("5367910").URPN.  | USPAT                        | OR | OFF | 2004/10/22 14:51 |
| S98 | 4   | ("3710626"   "5098847"   "5379654"   "5390551").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2004/10/22 16:28 |